

UNITED STATES DISTRICT COURT  
SOUTHERN DISTRICT OF NEW YORK

-----	X	
H. CRISTINA CHEN-OSTER, SHANNA	:	
ORLICH, ALLISON GAMBA and MARY	:	
DE LUIS,	:	
	:	
Plaintiffs,	:	10 Civ. 6950 (AT) (RWL)
v.	:	
	:	
GOLDMAN SACHS & CO. and THE	:	
GOLDMAN SACHS GROUP, INC.,	:	
	:	
Defendants.	:	
-----	X	

**DECLARATION OF EVANGELINA ROMERO**

I, Evangelina Romero, hereby declare under penalty of perjury that the following is true and correct:

1. I am employed as a discovery analyst by Sullivan & Cromwell LLP (“Sullivan & Cromwell”). I provide this declaration (i) to explain the document review process used in connection with the collection, review, and production of electronically stored information (“ESI”) in the *Chen-Oster* action (the “Action”), and (ii) to provide an estimate of the amount of time and costs that Goldman Sachs & Co. LLC and the Goldman Sachs Group, Inc. (together, “Goldman Sachs”) would incur to conduct the ESI review proposed by Plaintiff’s October 28, 2020 letter (“Letter”; ECF No. 1095), which I have reviewed. This declaration is based on my personal knowledge or information provided to me, and I would be competent to testify to the following facts if called upon to do so.

2. I previously submitted a declaration, dated September 26, 2019, in the Action describing the costs incurred by Goldman Sachs in connection with the review and production of ESI during merits discovery in this Action between March 1, 2019 and

September 18, 2019, which is appended hereto. I also reviewed the declaration of Michael LaBrie, dated September 26, 2019, which provided information about ESI that was processed by OpenText Corporation (“OpenText”), an electronic discovery (“eDiscovery”) platform vendor retained by Goldman Sachs, which is appended hereto.

### **Background**

3. As a discovery analyst at Sullivan & Cromwell, I am responsible for coordinating ESI review and production across multiple teams working on the firm’s litigation matters. The teams I coordinate include (i) third-party document reviewers; (ii) Sullivan & Cromwell electronic discovery litigation support personnel; and (iii) Sullivan & Cromwell litigation analysts and associates. I have worked in this role, for the Action and other matters, since June 1, 2015. Prior to that, I worked as a litigation analyst at Sullivan & Cromwell on projects related to electronic discovery. I have been an employee of Sullivan & Cromwell since January 10, 2005.

4. I graduated from College of New Rochelle in 1997 with a bachelor’s degree in political science and economics, and from The Catholic University of America, Columbus School of Law in 2001 with a juris doctorate. I have more than 14 years of experience working in eDiscovery.

### **Document Review Process**

5. Sullivan & Cromwell, together with co-counsel Paul Hastings LLP and certain vendors, managed and conducted multiple rounds of ESI review in this Action, including, but not limited to, (i) class certification document review from November 2012 to August 2014 (“Class Certification Review”), (ii) Fed. R. Civ. P. 23(b)(2) class certification document review from January 2018 to March 2018, and (iii) merits document review from March 2019 to September 2019 (“Merits Review”).

6. For each stage of document review, I understand that (i) the parties negotiated the scope of ESI discovery, including document custodians, time periods, and search terms; (ii) Goldman Sachs collected documents for the agreed-upon custodians during the agreed-upon time periods, which were loaded and processed by its eDiscovery vendor; and (iii) the eDiscovery vendor ran the agreed-upon search terms and loaded the search term “hits” for review.

7. Review for each document was conducted as follows:

- a. First, a reviewer would determine whether the document was responsive to one or more of Plaintiffs’ document requests and tag the document “Responsive” or “Not Responsive.” If the document was tagged “Not Responsive,” the reviewer would move on to the next document.
- b. Second, if the document was tagged “Responsive,” a reviewer would determine whether portions of the document were protected by, *inter alia*, the attorney-client privilege, work-product doctrine, bank examination privilege, or as confidential supervisory information.

8. Document families (*e.g.*, an email with attachments) containing one or more documents coded “Responsive” were produced, except for portions of documents protected by an applicable privilege, unless the only responsive portions of the documents were privileged. Documents coded “Not Responsive” were not produced, unless they were part of a document family containing responsive documents.

9. Based on the ESI review process described above, which is standard in eDiscovery, there is no way to determine why any particular document was coded “Not Responsive” without re-reviewing that document.

### Estimated Cost of Plaintiffs' Proposed ESI Review

10. Plaintiffs' Letter proposes that Defendants conduct ESI review for the following custodians during the following years: Lloyd Blankfein (2001–2018), Gary Cohn (2002–2016), J. Michael Evans (2002–2012), Edward Forst (2003–2005, 2007, 2009–2010), Justin Gmelich (2013–2018), Richard Gnodde (2003–2018), Dane Holmes (2006, 2012, 2014–2018), Eric Lane (2008–2009, 2011–2018), Henry Paulson (2002–2005), Pablo Salame (2006, 2008–2018), Michael Sherwood (2002–2016), David Solomon (2003–2018), and John Weinberg (2002–2015) (the “13 Custodians”). (Letter at 3.)

11. In total, Plaintiff have requested 153 years of custodial data, as summarized in the table below:

<b>Custodian<sup>1</sup></b>	<b>Date Range</b>	<b>Years</b>
Lloyd Blankfein*	2001–2018	18
Gary Cohn	2002–2016	15
J. Michael Evans*	2002–2012	11
Edward Forst	2003–2005; 2007; 2009–2010	6
Justin Gmelich	2013–2018	6
Richard Gnodde	2003–2018	16
Dane Holmes	2006; 2012; 2014–2018	7
Eric Lane	2008–2009; 2011–2018	10
Henry Paulson*	2002–2005	4
Pablo Salame*	2006; 2008–2018	12
Michael Sherwood*	2002–2016	15
David Solomon	2003–2018	16
John Weinberg*	2002–2015	17
	<b>Total:</b>	<b>153</b>

12. I understand that the agreed-upon search terms used during the Class Certification Review included so-called “boy’s club” search terms covering the discovery Plaintiffs are seeking in their Letter, and that “boy’s club” documents would have been coded “Responsive” during this review. I therefore use the Class Certification Review for my analysis

---

<sup>1</sup> Asterisks (\*) indicate individuals who have not previously been custodians in this Action.

below. The search terms used during the Class Certification Review, which I have reviewed, are appended as Exhibit A to Goldman Sachs's November 2, 2020 letter.

13. For the Class Certification Review, I understand from OpenText that the agreed-upon search terms hit on 4,040,203 unique documents (including full families) across 174 years of custodial data for 54 individual custodians (which excludes email distribution list custodians). Goldman Sachs produced over 100,000 documents during the Class Certification Review.

14. Dividing 4,040,203 search term hits by 174 years of custodial data yields 23,203, which is the average number of documents that hit on all search terms per year of custodial data. Multiplying 23,203 by 153 years of custodial data yields 3,550,021, which is the estimated unique number of all search term hits (including family members) for the 13 Custodians for Plaintiffs' proposed ESI review.

15. During the Class Certification Review, 546,927 documents that were sent to or received by the 13 Custodians were reviewed (including full families). During the Merits Review, Goldman Sachs produced 5,327 documents sent to or received by the 13 Custodians. Excluding the 546,927 previously reviewed search term hits and the 5,327 produced documents from the 3,550,021 set of estimated search term hits yields 2,997,767, which is the estimated review population for the 13 Custodians using all Class Certification Review search terms.

16. As set forth in my prior declaration and Mr. LaBrie's declaration, during the Merits Review, the review population was 1,276,649 documents, and it cost approximately \$ [REDACTED] to review those documents, inclusive of vendor costs. (*See* Romero Decl. ¶ 8; LaBrie ¶ 5.) Dividing 2,997,767, the estimated review population using all Class Certification Review search terms, by 1,276,649, the Merits Review population, yields an estimated review population ratio of 2.34815. Multiplying 2.34815 (the Class Certification Review search term ratio) by

\$ [REDACTED] yields \$24,271,093, which is the estimated cost of ESI review using all Class Certification Review search terms.

17. This is a conservative cost estimate that does not incorporate costs associated with, *inter alia*, resolving discovery disputes, work performed by Sullivan & Cromwell partners, work performed by Paul Hastings LLP attorneys, administrative expenses such as for legal assistants, or ancillary expenses. It also does not account for annual increases in costs.

**Estimated Timeline for Plaintiffs' Proposed ESI Review**

18. During the Merits Review, completing review of 1,276,649 documents took 24 weeks, which implies a review rate of 51,193 documents per week. (*See* Romero Decl. ¶¶ 5, 7). Dividing 2,997,767, the estimated review population using all Class Certification Review search terms, by 51,193 documents per week yields an estimated time to complete the review of 58.56 weeks. This time estimate will be longer if fewer reviewers are available to conduct the review.

19. Based on my over 14 years of experience in eDiscovery and managing ESI review, I estimate at least two additional months will be needed for, *inter alia*, quality control checks and preparing privilege logs. Therefore, I estimate that Plaintiffs' proposed ESI review for the 13 Custodians will take 67.26 weeks, or about seventeen months.

20. This is a conservative time estimate that does not incorporate the time associated with, *inter alia*, negotiating the scope and limits of ESI collection and review, eDiscovery vendor collection and processing, or training document reviewers.

I declare under penalty of perjury and pursuant to 28 U.S.C. § 1746 that the foregoing is true and correct.

Dated: November 2, 2020  
New York, New York

/s/ Evangelina Romero  
Evangelina Romero



UNITED STATES DISTRICT COURT  
SOUTHERN DISTRICT OF NEW YORK

-----	x	
H. CRISTINA CHEN-OSTER, SHANNA	:	
ORLICH, ALLISON GAMBA and MARY	:	
DE LUIS,	:	
	:	
Plaintiffs,	:	10 Civ. 6950 (AT) (RWL)
v.	:	
	:	
GOLDMAN SACHS & CO. and THE	:	
GOLDMAN SACHS GROUP, INC.,	:	
	:	
Defendants.	:	
-----	x	

**DECLARATION OF EVANGELINA ROMERO**

I, Evangelina Romero, hereby declare under penalty of perjury that the following is true and correct:

1. I am employed as a discovery analyst by Sullivan & Cromwell LLP ("Sullivan & Cromwell"). I provide this declaration to describe the costs incurred by Goldman Sachs & Co. LLC and the Goldman Sachs Group, Inc. (together, "Goldman Sachs") in connection with the review and production of electronically stored information ("ESI") during merits discovery in the above-captioned action between March 1, 2019 and September 18, 2019 (the "Review Period"). This declaration is based on my personal knowledge or information provided to me, and I would be competent to testify to the following facts if called upon to do so.

**Background**

2. As a discovery analyst at Sullivan & Cromwell, I am responsible for coordinating ESI review and production across multiple teams working on the firm's litigation matters. The teams I coordinate include (i) third-party document reviewers; (ii) Sullivan & Cromwell electronic discovery litigation support ("EDLS") personnel; and (iii) Sullivan &



Cromwell litigation analysts and associates. I have worked in this role, for the above-captioned action and other matters, since June 1, 2015. Prior to that, I worked as a litigation analyst at Sullivan & Cromwell on projects related to electronic discovery. I have been an employee of Sullivan & Cromwell since January 10, 2005.

3. I graduated from College of New Rochelle in 1997 with a bachelor's degree in political science and economics, and from The Catholic University of America, Columbus School of Law in 2001 with a juris doctorate. I have more than 14 years of experience working in electronic discovery.

**Cost of ESI Review and Production During the Review Period**

4. I understand that Goldman Sachs collected over 55.1 million documents, approximately 1.67 million of which hit upon the search terms. I also understand that the parties agreed to exclude approximately 335,942 large Bloomberg files from the review. The population of documents for review was therefore approximately 1.28 million documents.

5. Sullivan & Cromwell contracted with Tower Legal Solutions ("TLS") to provide attorney document review services for the above-captioned matter. TLS attorney reviewers were responsible for conducting first-level review for responsiveness and potential privilege of documents within the 1.28 million-document review population. During the Review Period, the number of TLS document reviewers ranged from 11 to 57 people working simultaneously. The total cost for the TLS document reviewers during that period was \$ [REDACTED]

6. Sullivan & Cromwell's in-house EDLS team is responsible for, among other things, electronic discovery project management, processing client data for review and production, electronic production of responsive documents, data copying and transmission, and maintaining discovery documentation. During the Review Period, eight EDLS employees have

worked on ESI production-related tasks for the above-captioned matter. The total cost for the EDLS employees during that period was \$ [REDACTED]

7. Sullivan & Cromwell's in-house litigation analysts are law school graduates that are trained to assist with various discovery processes. Among other things, litigation analysts are responsible for reviewing documents, drafting or revising privilege and production logs, and managing third-party document review vendors. Sullivan & Cromwell associates are attorneys who, among other things, are responsible for reviewing documents and managing all aspects of ESI review and production. During the Review Period, 27 litigation analysts and 12 associates have worked on the review and production of Goldman Sachs's ESI for the above-captioned matter. The total cost for that work was approximately \$ [REDACTED]<sup>1</sup>

8. In total, the work needed for vendor TLS and Sullivan & Cromwell EDLS employees, associates, and litigation analysts and to review the 1.28 million documents in the review population during the Review Period cost \$ [REDACTED]<sup>2</sup>

I declare under penalty of perjury and pursuant to 28 U.S.C. § 1746 that the foregoing is true and correct.

Dated: September 26, 2019  
Milan, Italy<sup>3</sup>

  
Evangelina Romero

---

<sup>1</sup> These estimates exclude work performed by Sullivan & Cromwell associates that was not related to ESI production and document review.

<sup>2</sup> These estimates exclude: work performed by Sullivan & Cromwell partners, work performed by Paul Hastings LLP employees, administrative expenses such as for legal assistants or mailing, and ancillary expenses such as after-hours meals and car rides.

<sup>3</sup> I am ordinarily located in New York, and the overwhelming majority of work that I performed in the above-captioned action was in New York. I am currently temporarily located in Milan, Italy.

UNITED STATES DISTRICT COURT  
SOUTHERN DISTRICT OF NEW YORK

-----	X	
H. CRISTINA CHEN-OSTER, SHANNA	:	
ORLICH, ALLISON GAMBA and MARY	:	
DE LUIS,	:	
	:	
Plaintiffs,	:	10 Civ. 6950 (AT) (RWL)
v.	:	
	:	
GOLDMAN SACHS & CO. and THE	:	
GOLDMAN SACHS GROUP, INC.,	:	
	:	
Defendants.	:	
-----	X	

**DECLARATION OF MICHAEL LABRIE**

I, Michael LaBrie, hereby declare under penalty of perjury that the following is true and correct:

1. I am currently employed as a senior manager at OpenText Corporation ("OpenText"), an eDiscovery platform vendor retained by Goldman Sachs & Co. LLC and the Goldman Sachs Group, Inc. (together, "Goldman Sachs") in the above-captioned action. I provide this declaration to provide information about electronically stored information ("ESI") collected, reviewed, and produced by Goldman Sachs in the above-captioned action which OpenText processed, and to describe certain features of OpenText's data management platform. This declaration is based on my personal knowledge and information provided to me, and I would be competent to testify to the following facts if called upon to do so.

**Background**

2. I have worked for OpenText for over six years. Currently I am a senior manager, responsible for management and oversight of the team of project managers as well as consultation for OpenText customers on the Axcelerate Review and Ingestion platforms



("Axcelerate"), including for Goldman Sachs in this action. I have worked as a senior manager since July 2019. Before that, I worked for OpenText or its predecessor companies in a variety of electronic-discovery-related roles, including as a senior project manager, project manager, and case analyst. I joined OpenText in May 2013.

3. Prior to joining OpenText's predecessor company, I worked as a paralegal for Wilmer Cutler Pickering Hale and Dorr LLP in Boston, MA for approximately five years.

4. I graduated from Saint Anselm College in 2008. I hold certificates from ACEDS (Association of Certified E-discovery Specialists) and the Electronic Discovery Institute, and am a Member of The Sedona Conference.

#### **ESI Production Statistics**

5. During merits discovery, OpenText loaded and processed over 55.1 million ESI documents from 62 custodians. I have been informed by Goldman Sachs that the large number of documents resulted from the collection of documents (together with attachments) sent or received over a period of many years by 62 separate custodians. All of these documents provided to OpenText are hosted in the OpenText On Demand cloud environment. The total hosting, processing, production, and servicing fees incurred between December 2018 and September 15, 2019 were \$ [REDACTED]

6. From the population of over 55.1 million collected documents processed, approximately 1.67 million documents hit upon the search terms provided to OpenText in March 2019, including full families and after de-duplication.<sup>1</sup> OpenText's Axcelerate system

---

<sup>1</sup> These search terms initially hit upon approximately 1.63 million documents, including full families and after de-duplication. During the course of the ongoing ESI review, reviewers identified additional passwords, which they provided to OpenText. OpenText added these passwords to its master password database and regularly re-ran its password-cracking software across the entire population of collected documents during the course of the review. As a result

shows that Goldman Sachs's review team has reviewed approximately 1.28 million of those documents between March 2019 and today.<sup>2</sup> From that review population, Goldman Sachs's review team identified 61,445 documents as responsive.

7. Of the 61,445 responsive documents, 39,272 such documents (63.9%) hit upon the search terms and 22,173 (36.1%) were family members of search-term hit documents. On average, document families with one or more responsive documents comprised 3.72 documents.

8. OpenText used a representative sample of the search-term hit population (including family members) to calculate the expected number of responsive documents within the 1.67 million document review population. This analysis estimated, at the 95% confidence level and 5% confidence interval, that the total number of responsive documents in that population was 47,633, with a lower bound of 19,943 and an upper bound of 75,558. Goldman Sachs's review team identified 61,445 responsive documents, which is 81% of OpenText's upper-bound estimate of the number of responsive documents within the review population.

#### **The "Modified Null Set"**

9. Of the over 55.1 million documents collected and processed by OpenText, 50,708,545 documents neither hit upon the search terms nor were family members of documents that hit upon the search terms (the "Null Set").<sup>3</sup> I have been informed that the parties also agreed

---

of this decryption process, additional documents hit on the search terms, which increased the review population by approximately 54,000 documents.

<sup>2</sup> I have been informed that the parties agreed that Goldman Sachs need not review 335,942 large Bloomberg files.

<sup>3</sup> Because of de-duplication, the number of documents identified for review and the Null Set do not add up to the total number of documents collected.



to exclude certain categories of the documents from the Null Set: (1) large Bloomberg files, (2) image files, and (3) documents with no content, such as blank documents. Accordingly, those categories of documents were excluded from the Null Set, resulting in a population of 37,490,062 documents (the “Modified Null Set”).

10. OpenText generated a randomly selected, representative sample of documents from the Modified Null Set using a 95% confidence level and a 5% confidence interval, which resulted in 384 documents. Goldman Sachs’s counsel identified three responsive documents within the 384 document sample (comprising 0.78% of the sample).

#### **Technology-Assisted Review Process**

11. I have been provided with a copy of Plaintiffs’ September 23, 2019 letter, which proposes that Goldman Sachs subject the entire over 37 million document Modified Null Set to a technology-assisted review (“TAR”) process to identify additional potentially responsive documents. I have been asked by Goldman Sachs for a projection of the burden required to implement Plaintiffs’ proposal.

12. In sum, it would take a substantial amount of time and effort by OpenText to prepare the entire Modified Null Set for such a review. None of the over 37 million documents in the Modified Null Set have been processed for review. Instead, they are currently stored in a cloud environment that is used for early data assessment only (*e.g.*, the application of search terms) with no advanced review or analytics capabilities. In order to prepare the entire Modified Null Set for a TAR review, OpenText would first need to perform a substantial amount of technical work, including processing and publishing all 37 million+ documents to multiple review sites having machine learning, review, and analytics capabilities.

13. I understand from OpenText engineers that the time and effort required to configure the system and publish the Modified Null Set for a TAR review of this magnitude is a

direct result of the volume of documents in the population. A population of this size would have to be split across multiple review sites to allow for consistent publishing of large volumes of data, machine learning, and productions of data without impacting the tasks of the review team. OpenText anticipates that the system would be configured with several sites managing the machine learning aspects of the TAR review, and an additional primary site to manage attorney review of the documents. Creating these multiple review sites would take approximately two to three weeks. Publishing the Modified Null Set data to these review sites would take an additional approximately three weeks. OpenText projects that configuring these review sites and publishing all 37 million+ documents would take at least 5 to 6 weeks. In total, OpenText estimates that it would require more than 100 hours of work by OpenText employees during this period to set up the review sites and prepare the documents for review.

14. In addition, the time and effort needed to implement and coordinate the day-to-day activities necessary to support a TAR review of this magnitude would far exceed typical levels. For example, as part of the TAR process, OpenText runs a machine learning iteration to identify documents to be reviewed as likely responsive. This iteration process normally takes minutes or, occasionally, hours to complete. But, given the size of the Modified Null Set, OpenText engineers anticipate that the iteration process could take days, or perhaps even weeks, to complete, and would require a substantial amount of active oversight by OpenText employees. Given the configuration of the system with multiple machine learning sites, additional project management time (not typically required for a TAR review) would be needed to transfer data between the machine learning sites and the primary review site. Extrapolating the amount of project management time that OpenText spent supporting the ESI review between March 2019 and today (on a per document basis), I project that the project management time for the over 37



million document Modified Null Set would likely exceed \$ [REDACTED] particularly considering the additional services outlined above.

15. I have reviewed Plaintiffs' proposal in their September 23, 2019 letter that Defendants subject the entire over 37 million document Modified Null Set to a TAR review to locate potentially responsive documents using "a goal recall rate of 85%." In my experience, the number of documents required to review to achieve 85% recall is tied directly to the percentage of responsive documents in the overall population; the lower the percentage of responsive documents, the more documents must be reviewed to achieve 85% recall. While every case is different and many factors influence the efficiency of a TAR review, a population in which an estimated 0.78% of the documents are responsive can expect a correspondingly low efficiency score. After consulting with colleagues who have run TAR through Axcelerate on projects with populations in which less than 1% of the documents were responsive, as well as consulting with OpenText colleagues familiar with other TAR reviews on populations in which less than 1% of the documents were responsive, I estimate that a TAR process will have approximately 17–19% efficiency, or about six non-responsive documents reviewed per responsive document identified. Based on the size of responsive and non-responsive families observed during the review of the documents that hit upon the search terms, and assuming that the Modified Null Set has a comparable family distribution, locating 85% of the potentially responsive documents in the Modified Null Set would require reviewing more than 3.4 million documents.

16. In total, I project that OpenText's fees in connection with a TAR review of over 37 million documents, as described above, would be at least \$ [REDACTED] This does not include any of the costs of Goldman Sachs's attorney review team.

I declare under penalty of perjury and pursuant to 28 U.S.C. § 1746 that the foregoing is true and correct.

Date: September 26, 2019  
Norwood, Massachusetts



Michael LaBrie